
 FLORIDA ATLANTIC UNIVERSITY	COURSE CHANGE REQUEST Undergraduate Programs		UUPC Approval <u>3-29-21</u> UFS Approval _____ SCNS Submittal _____ Confirmed _____ Banner Posted _____ Catalog _____
	Department Comp & Electrical Eng and Comp Science College Engineering and Comp Science		
Current Course Prefix and Number COP 4045		Current Course Title Python Programming	
<i>Syllabus must be attached for ANY changes to current course details. See Checklist. Please consult and list departments that may be affected by the changes; attach documentation.</i>			
Change title to: Change prefix From: _____ To: _____ Change course number From: _____ To: _____ Change credits* From: _____ To: _____ Change grading From: _____ To: _____ Change WAC/Gordon Rule status** Add <input type="checkbox"/> Remove <input type="checkbox"/> Change General Education Requirements*** Add <input type="checkbox"/> Remove <input type="checkbox"/> <small>*Review Provost Memorandum</small> <small>**WAC/Gordon Rule criteria must be indicated in syllabus and approval attached to this form. See WAC Guidelines.</small> <small>***General Education criteria must be indicated in syllabus and approval attached to this form. See GE Guidelines.</small>		Change description to: Change prerequisites/minimum grades to: COP 3530 or COP 3410 Change corequisites to: Change registration controls to: Please list existing and new pre/corequisites, specify AND or OR and include minimum passing grade (default is D-).	
Effective Term/Year for Changes: Fall 2021		Terminate course? Effective Term/Year for Termination:	
Faculty Contact/Email/Phone Hari Kalva, hkalva@fau.edu			
Approved by Hanqi Zhuang Department Chair _____ College Curriculum Chair _____ College Dean _____ UUPC Chair _____ Undergraduate Studies Dean <u>Edward Pratt</u> UFS President _____ Provost _____		Digitally signed by Hanqi Zhuang Date: 2021.01.17 15:10:20 -05'00' 	Date _____ <u>3-10-21</u> <u>3/11/21</u> <u>3-29-21</u> <u>3-29-21</u> _____ _____

Email this form and syllabus to mjenning@fau.edu seven business days before the UUPC meeting.

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1. Course title/number, number of credit hours	
PYTHON PROGRAMMING/ COP 4045-001 CRN 15327	3 credit hours
2. Course prerequisites, corequisites, and where the course fits in the program of study	
Prerequisites: COP 3530 or COP 3410	
3. Course logistics	
<p><i>Term:</i> Spring 2020 <i>Lecture time and place:</i> This is a distance-learning course with no live lectures.</p> <p>All course material and assignments are posted on Canvas, at http://canvas.fau.edu.</p>	
4. Instructor contact information	
<i>Instructor's name</i>	Dr. Ionut Cardei
<i>Office address</i>	EE 419
<i>Contact telephone number</i>	561-297-3401 (only during office hours)
<i>Email address</i>	icardei@fau.edu [email is preferred]
<i>Office hours:</i>	TBA
5. Communication Policy	
<p>The preferred mode of communication for private messages to the instructor is using Canvas's Message tool. For questions or concerns related to the course, please check first the "Class Q&A" Discussion Board on Canvas. Expect answers within 48 hours from posting. For private messages sent via Canvas expect a reply within 24 hours, excluding the weekend period or holidays. For more urgent communication, contact the instructor via regular email from your FAU email account.</p>	
6. Course description	
<p>This class is an introduction to the Python programming language, with applications to practical problem solving involving data manipulation and analysis. The first part of the class focuses on teaching the basics of the Python language. Topics covered are data structures (lists, arrays, dictionaries, sets, comprehensions), functions, files, and object-oriented language elements. In the second part of the course students learn to apply advanced language features and methodologies in combination with third-party libraries for scientific computation to develop real-world applications.</p>	
7. Course objectives/student learning outcomes/program outcomes	
<i>Student learning outcomes & relationship to ABET objectives (computing programs)</i>	<p>ABET Outcomes:</p> <p>6. An ability to apply engineering/computer science theory and hardware/software development fundamentals to develop and conduct appropriate experimentation, analyze and interpret data, and use computing/engineering judgment produce engineering/computing-based solutions/conclusions</p> <p>Learning Objectives</p>

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	<ol style="list-style-type: none"> 1. demonstrate and apply programming methods using the Python programming language; 2. demonstrate the ability to develop object-oriented software with the Python language and use industry standard development tools; 3. apply functional programming methods and other advanced Python language features to improve application quality and performance; 4. develop Python applications using third party libraries for graphing, scientific computation, and communication.
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8. Course evaluation method

Homeworks 55 % Two Exams 40 % Homework Discussion 5 %	The homework problems include multiple-choice type tests administered online using Canvas and programming problems in Python. Homework Discussion points are given if the student posts a certain number of times during the semester non-trivial and relevant messages on the homework Q&A discussion board forums on Canvas.
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9. Course grading scale (tentative)

Grading Scale:
 A: 100-95, A-: 94-90, B+: 89-85, B: 84-80, B-:79-75, C+: 74-72, C: 71-68, C- 67-60, D: 59-50, F:49-0

10. Policy on makeup tests, late work, and incomplete grades

Late work is not acceptable, except for special (e.g. medical) circumstances and with advance notice.

Incomplete grades are against the policy of the department. Unless there is solid evidence of medical or otherwise serious emergency situation incomplete grades will not be given.

No extra credit assignments will be given. However, some homeworks have extra credit problems.

11. Computing Resources and Software

Students are responsible for applying proper backup procedures to preserve their work on homework assignments and the project. Common methods involve copying files periodically and as necessary to USB flash drives, the FAU drives, Google Drive, DropBox, or some other online service.

Students should have access to a PC running Windows, Linux, or Mac OS with internet access.

Students are **required** to download and install the **Anaconda Python 3.x software** from <https://www.continuum.io/download>. This could take ~2GB disk space.

12. Attendance policy statement

All class material and assignments will be posted on Canvas. Students should log in at least two times per week to make sure they are up to date with announcements, postings, messages, and assignments.

Students are expected to attend all of their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-attendance.

Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness,

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family emergencies, military obligation, court-imposed legal obligations or participation in University-approved activities. Examples of University-approved reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances and debate activities. It is the student's responsibility to give the instructor notice prior to any anticipated absences and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student's final course grade as a direct result of such absence.

13. Disability policy statement

In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodations due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU's campuses – Boca Raton, Davie and Jupiter – however disability services are available for students on all campuses. For more information, please visit the SAS website at www.fau.edu/sas/.

14. Counseling and Psychological Services (CAPS) Center

Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU's Counseling and Psychological Services (CAPS) Center. CAPS provides FAU students a range of services – individual counseling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well-being. For more information, go to <http://www.fau.edu/counseling/>.

15. Code of Academic Integrity policy statement

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the university mission to provide a high quality education in which no student enjoys unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and place high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. See University Regulation 4.001 at www.fau.edu/regulations/chapter4/4.001_Code_of_Academic_Integrity.pdf

Class Policy:

Late submissions will not be accepted or graded.

All assignments and exams in this course must be **INDIVIDUAL** effort. The best way to learn how to program in a new language is to write your own code. Sharing code is considered cheating. Students are NOT allowed to collaborate or share information during the exam periods.

Sharing code includes posting completed work (code) before or after the assignment official deadline onto sites such as GitHub, emailing code to other students, allowing any access to your work before or after the official deadline has passed. Other code sharing offenses include submitting another person's work as your own, including using code off sites such as GitHub, Chegg, etc.

Modifying code and submitting it as your own is a fraudulent practice—specifically, plagiarism—and is no different than copying paragraphs of information from a book or journal article and calling it your own. Make sure that you work independently and submit only your own code.

16. Required texts/reading

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The Practice of Computing using Python, 3rd Ed., by Punch and Enbody. ISBN-13: 9780134520513

Note: the second edition is acceptable; keep in mind that chapter numbering may not match the 3rd edition.

The Programming Lab component is not required.

17. Supplementary/recommended readings

1. Textbook webpage: <https://www.pearsonhighered.com/product/Punch-Practice-of-Computing-Using-Python-The-3rd-Edition/9780134379760.html>
2. The Python documentation page: <https://docs.python.org/3/>
3. The Python tutorial: <https://docs.python.org/3/tutorial/index.html>
4. NumPy and SciPy documentation page: <http://docs.scipy.org/doc/>
5. Graphical User Interfaces with Tk: <https://docs.python.org/3/library/tk.html>

18. Course topical outline

Ch 1. Beginnings
Ch 2. Control
Ch 3. Algorithms
Ch 4. Working with Strings
Ch 5. Functions
Ch 6. Files and Exceptions
Ch 7. Lists and Tuples
Ch 8. More on Functions
Ch 9. Dictionaries and Sets
Ch 11. Intro to Classes
Ch 12. More on Classes
Ch 13. Program Development with Classes
Ch 14. Files and Exceptions II
Ch 15. Recursion
Ch 16. Fun stuff with Python
Scientific Programming – NumPy
Web Programming with Flask

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19. Computer Requirements / Technical Skills

Computer Requirements

Operating System

A computer that can run Linux, Mac OSX, or Windows 7 or higher

Peripherals

A backup option should be available to minimize the loss of work. This can be an external hard drive, a USB drive, cloud storage, or your folder on the FAU servers.

Software

[Once logged in to Canvas](#), please visit the links located at the top of each Canvas page for LMS compatibility with your computer. Make sure your Internet browser is compatible and that you have all the recommended plug-ins installed.

Required Technical Skills [in addition to prerequisites]

Word editing and ability to export documents to the PDF format.

20. Technical Problems

Technical Problem Resolution Procedure

In the online environment, there is always a possibility of technical issues (e.g., lost connection, hardware or software failure). Many of these can be resolved relatively quickly, but if you wait until the last minute before due dates, the chances of these glitches affecting your success are greatly increased. Please plan appropriately. If a problem occurs, it is essential you take immediate action to document the issue so your instructor can verify and take appropriate action to resolve the problem.

Please take the following steps when a problem occurs:

Contact the eSuccess Advisor for assistance:

eLearning Success Advisor - 561-297-3590

1. If you can, make a Print Screen of the monitor when the problem occurs. Save the Print Screen as a .jpg file. If you are unfamiliar with creating a Print Screen file, visit <http://en.kioskea.net/faq/141-print-screen-screen-capture-windows-mac-os-x-and-unix-linux>.
2. If the problem seems to be with Canvas or another system managed by FAU IRM or TSG complete a Help Desk ticket <http://helpdesk.fau.edu/>. Make sure you complete the form entirely and give a full description of your problem so the Help Desk staff will have the pertinent information in order to assist you properly. This includes:
 1. Select "Canvas (Student)" for the Ticket Type.
 2. Input the Course ID.
 3. In the Summary/Additional Details section, include your operating system, Internet browser, and Internet service provider (ISP).
 4. Attach the Print Screen file, if available.
3. If the problem is with the tools/code used in class then send an email to your instructor to notify him of the problem. Include all pertinent information of the problem – attach/paste course code or include the screenshot if it makes sense.
4. If you do not hear back from the Help Desk within a timely manner (48 hours), it is your responsibility to follow up with the appropriate person until a resolution is obtained.

In case you contacted your instructor and you don't get a reply in two days, please send the message again, call or stop by the instructor's office during office hours.

21. Selected University and College Policies

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Religious Accommodation Policy Statement

In accordance with rules of the Florida Board of Education and Florida law, students have the right to reasonable accommodations from the University in order to observe religious practices and beliefs with regard to admissions, registration, class attendance and the scheduling of examinations and work assignments. For further information, please see [Academic Policies and Regulations](#).

University Approved Absence Policy Statement

In accordance with rules of the Florida Atlantic University, students have the right to reasonable accommodations to participate in University approved activities, including athletic or scholastics teams, musical and theatrical performances and debate activities. It is the student's responsibility to notify the course instructor at least one week prior to missing any course assignment.

Incomplete Grade Policy Statement

A student who is passing a course, but has not completed all work due to exceptional circumstances, may, with consent of the instructor, temporarily receive a grade of incomplete ("I"). The assignment of the "I" grade is at the discretion of the instructor, but is allowed only if the student is passing the course.

Withdrawals

Any student who decides to drop is responsible for completing the proper paper work required to withdraw from the course.

Grade Appeal Process

A student may request a review of the final course grade when s/he believes that one of the following conditions apply:
 There was a computational or recording error in the grading.
 Non-academic criteria were applied in the grading process.
 There was a gross violation of the instructor's own grading system.
 The procedures for a grade appeal may be found in [Chapter 4 of the University Regulations](#).

Disruptive Behavior Policy Statement

Disruptive behavior is defined in the FAU Student Code of Conduct as "... activities which interfere with the educational mission within classroom." Students who behave in the face-to-face and/or virtual classroom such that the educational experiences of other students and/or the instructor's course objectives are disrupted are subject to disciplinary action. Such behavior impedes students' ability to learn or an instructor's ability to teach. Disruptive behavior may include, but is not limited to: non-approved use of electronic devices (including cellular telephones); cursing or shouting at others in such a way as to be disruptive; or, other violations of an instructor's expectations for classroom conduct.

Office of Information Technology Online Help Desk:	http://helpdesk.fau.edu
FAU Libraries Website:	http://www.fau.edu/library
Center for Learning and Student Success Website:	http://www.fau.edu/class
University Center for Excellence in Writing:	http://www.fau.edu/UCEW
Math Learning Center:	http://www.math.fau.edu/MLC
Office of Undergraduate Research and Inquiry:	http://www.fau.edu/ouri
Student Accessibility Services Office	http://www.fau.edu/sas/
Office of International Programs and Study-abroad:	www.fau.edu/goabroad
Freshman Academic Advising Services:	http://www.fau.edu/freshmanadvising

Faculty Rights and Responsibilities

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Florida Atlantic University respects the right of instructors to teach and students to learn. Maintenance of these rights requires classroom conditions which do not impede their exercise. To ensure these rights, faculty members have the prerogative:

- To establish and implement academic standards
- To establish and enforce reasonable behavior standards in each class
- To refer disciplinary action to those students whose behavior may be judged to be disruptive under the *Student Code of Conduct*.

The instructor reserves the right to adjust this syllabus as necessary.